STRUMIGENYS ANETES species nov.

Insecta: Hymenoptera: Formicidae: Myrmicinae: Dacetini

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DIAGNOSIS, WORKER: A member of the group of *S. godeffroyi* or of *S. doriae,* or an intermediate between them. From all other Australian species of *Strumigenys, S. anetes* and the closely related *S. paranetes,* described on Card No. 43, together differ in mandibular armament, which consists of the apical fork and a single minute, obtuse intercalary tooth, without any trace of a preapical tooth; mandibles diverge apicad at rest when fully closed. From *S. doriae, S. anetes* and *paranetes* differ in much smaller size (HL + ML <1.3 mm, vs. >1.4 mm in *S. doriae),* nondepressed vertexal lobes, much sparser standing pilosity, short promesonotum with respect to propodeal dorsum (about 2:1, vs. about 3:1 in *doriae),* in lack of "secretory patches" on sides of pronotum and mesonotum, so prominent in *doriae,* in the nearly or quite smooth and shining postpetiolar disc, vs. the sculptured and opaque disc of *doriae,* plus a number of other characters. *S. anetes* differs from *paranetes* in form of propodeal lamellae (compare figures). Possible differences may also exist in size, proportions of head and mandibles, and the development of a preocular notch, but these matters are complex and are saved for discussion below.

HOLOTYPE, WORKER: TL 3.1, HL 0.82, HW 0.56 (CI 68), ML 0.40 (MI 49), SL 0.56 (SI 100), eye L 0.06, WL 0.80, hind femur L 0.65, hind tibia L 3 0.51 mm.

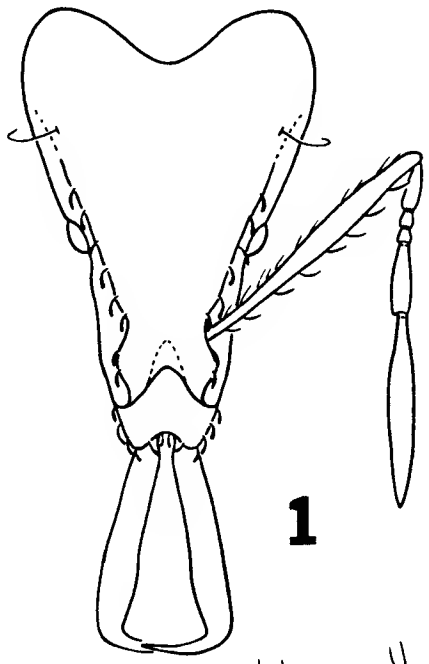

Fig. 1, *Strumigenys anetes* worker paratype from Malanda, Queensland, dorsal full-face view of head and mandibles showing only the major fringing pilosity. Drawing by Nancy Buffler.

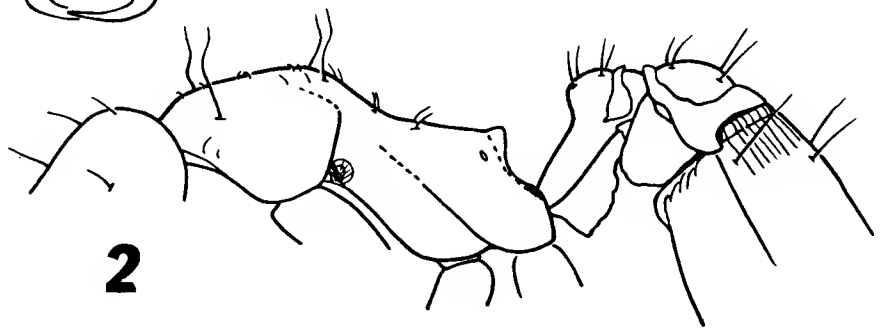

Fig. 2, *Strumigenys anetes* worker paratype, same specimen shown in fig. 1, side view of alitrunk, petiole, postpetiole and base of gaster. Drawing by Nancy Buffler.

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PARATYPES, WORKER: TL 2.8-3.3, HL 0.77-0.86, HW 0.49-0.60 (CI 64-70), ML 0.37-0.42, SL 0.49-0.57 (SI 95-100), WL 0.71-0.81 mm.

In addition to the characters already covered in the diagnosis and portrayed in the figures, the following details are noted: in full-face view, outline of head anterior to eyes slightly tapering anteriad, lateral margins here (=preocular lamellae) feebly convex, almost straight; dorsal margins of antennal scrobes converging anteriad, feebly concave to straight, leaving the eyes visible from above. Vertex gently and evenly convex, the vertexal lobes continuing the convexity, and not suddenly depressed, rounding into their posterior and lateral surfaces behind scrobes. Eyes convex, partly prospicient due to very slight recession of the preocular lamellae immediately anterior to them; 12-14 ommatidia visible at 50x in each eye of the holotype.

Mandibles straight, dorsomesal margins cariniform to near apex; teeth of apical fork long and slender, dorsal tooth parallel to and longer than the ventral; intercalary denticle a minute, blunt tubercle halfway between them. Clypeus bilobed, with a deep anterior median excision separating the lobes, and behind this narrow median tumulus separating two circular pits, one on each lobe, marking the position of the mandibular condyle beneath. Antennal scapes slender, faintly sigmoidal, widest a little apicad of midlength. Funiculus long, apical segment slender fusiform, longer than funiculomeres I-IV taken together; IV longer than I. Alitrunk slender; posterior mesonotum narrowed as seen from above, and concave as seen in side view (fig. 2); metanotal groove obsolete. Propodeal teeth short, completely embedded in low, rounded, areolate, spongiform lamellae, each of which is narrowed and concave below tooth, and finally ends ventrad in a low convexity.

Petiole with slender, basally tapered anterior peduncle, about equal to node in length; node rounded, its free discal face about as wide as long in dorsal view, gently convex and feebly downsloping caudad, with a narrow, transvere, posterodorsal spongiform collar that widens laterad into small lobes. Ventral and ventrolateral spongiform appendages voluminous. Postpetiolar disc nearly 1.5x as wide as long, convex, its surface obscurely punctulate to smooth, prevailingly shining, with narrow anterior and broad posterodorsal spongiform collars. Base of gaster with a thick, transverse spongiform collar attached to about 14 sharp, longitudinal costulae extending about 1/3 length of basal gastric tergum.

The diagnostic character states are the narrow, concave propodeal lamellae in *anetes* vs. the broad, mostly convex lamellae in *S. paranetes*. Some variation exists in this character, but all the specimens I have seen fall distinctly one way or the other. A size difference concordant with the lamellar distinction also seems to hold in the samples from the Atherton Tableland, and in particular from the type locality of both species, Malanda, where the two species were taken in rain forest within 200 meters of one another. The Tableland samples, representing only four nest series for each species, have HL 0.82-0.86 for *anetes,* and 0.74-0.77 for paranetes; when the lengths of the mandibles are added in, the respective dimensions are anetes, HL+ML 1.22-1.28, and *paranetes,* 1.10-1.15 mm. The problem is that the series from Shipton's Flat, farther north in the region between Mossman and Cooktown, which has propodeal lamellae of the *anetes* type, shows measurements at the low end of the *anetes* range—HL 0.77-0.81, HL+ML 1.14-1.20—intermediate between the two species.

Thus we have a situation in which dimensions are different, so far as the limited material goes, in the Tableland-Bartle Frere area, but not so different at Shipton's Flat. It is tempting to refer this case to the list of possible examples of character displacement, but the sample is still much too small to be convincing on this account. Doubts must also be held about the status of the two extreme forms as species vs. conspecific morphs, but until we can muster much more adequate material of this complex, it seems best to emphasize the differences by treating them as distinct species.

Holotype (MCZ) from one of two nest series taken in a rain forest patch adjacent to the village of Malanda, on the Atherton Tableland of northern Queensland, in rotten logs, 4 and 5 Nov. 1950, leg. W.L. Brown, Jr. Paratypes (MCZ, ANIC - Canberra, BNMH - London, CUIC-Ithaca, USNM - Washington) taken with the holotype and nearby at Malanda, also at the following localities in northern Queensland, Australia: Shipton's Flat, s of Cooktown, 1 June 1958, leg. P. F. and P. J. Darlington, Jr. Herberton Rd., near Atherton, 4000 feet, leg. R. W. Taylor, Acc. No. 1617, 16 June 1962, ex rotten log. Lake Eacham National Park, leg. Taylor, Acc. No. 1438, ex rotten log in rain forest.